Claims

1. A blower for creating a current of air, the blower comprising:

a blower housing defining a suction opening and a discharge opening;

a rotating blower element disposed within the blower housing and being in fluid communication with the suction opening and the discharge opening, wherein the rotating blower element forces the current of air from the suction opening to the discharge opening; and

a heat-generating housing wall borne by the blower housing and interposed between the suction opening and the discharge opening, wherein the heat-generating housing wall provides electrically generated heat that heats the current of air.

2. The blower of claim 1, wherein the heat-generating housing wall comprises a resin substrate impregnated with a conductive material that is more electrically conductive than the resin substrate.

3. The blower of claim 2, wherein the conductive material includes graphite.

4. The blower of claim 1, wherein the heat-generating housing wall comprises an outer layer and an inner layer, wherein the inner layer is more electrically conductive than the outer layer.

5. The blower of claim 4, wherein the inner layer includes a graphite cloth.

6. The blower of claim 1, further comprising a semiconductive wire lying in intimate contact with the heat-generating housing wall.

7. The blower of claim 6, wherein the wire has a first connection, a second connection, and a third connection allowing selective control of the quantity of heat generated by the heat generating housing wall.

8. The blower of claim 6 where the wire engages the heat generating housing wall along a length extending from a first point or node to a second point or node.

9. The blower of claim 8 further comprising an intermediate point or node providing a reduced electrical both and a corresponding reduction in the heat generated by the heat generating housing wall.

10. The blower of claim 1, wherein the heat-generating housing wall is comprised of a thermosetting resin.

11. The blower of claim 1, wherein the blower is a centrifugal fan.

12. The blower of claim 1, wherein the blower is an axial fan.

13. The blower of claim 1, wherein the heat-generating housing wall includes a plurality of heating elements that can be selective energized individually for providing discrete levels of heat.

14. The blower of claim 1, wherein the heat-generating wall can generate infinitely adjustable levels of heat.

15. The blower of claim 1, wherein the blower housing comprises at least two sections that are joined at a seam, and the blower further comprises an electrical node adjacent to the seam for providing electrical power to the heat-generating housing wall.

16. The blower of claim 1, further comprising thermal insulation on the heat-generating housing wall to reduce heat losses therethrough.

17. The blower of claim 1 including a plurality of connections to selectively apply electricity to the heat generating housing.

18. The blower of claim 1 wherein the heat generating housing wall is comprised of a material which generates heat in response to the application of current.

19. The blower of claim 18 wherein the material is stainless steel or thermosetting resin.

20. A blower for creating a current of air, the blower comprising:

a blower housing defining a suction opening and a discharge opening;

a rotating blower element disposed within the blower housing and being in fluid communication with the suction opening and the discharge opening, wherein the rotating blower element forces the current of air from the suction opening to the discharge opening; and

a heat-generating housing wall comprising a material generating heat in response to the application of current and a conductive material that is more electrically conductive than the thermosetting resin, wherein the heat-generating housing wall is borne by the blower housing, interposed between the suction opening and the discharge opening, and generates heat that heats the current of air.

21. The blower of claim 20 wherein the heat generating material is a thermosetting resin or stainless steel.

22. The blower of claim 20, wherein the conductive material includes graphite.

23. The blower of claim 20, wherein the conductive material includes a nickel and chromium alloy.

24. The blower of claim 20, wherein the heat-generating housing wall comprises an outer layer and an inner layer, wherein the inner layer is more electrically conductive than the outer layer.

25. The blower of claim 20, wherein the conductive material is a wire.

26. The blower of claim 25 where the wire engages the heat generating housing wall along a length extending from a first point or node to a second point or node.

27. The blower of claim 26 further comprising an intermediate point or node providing a reduced electrical both and a corresponding reduction in the heat generated by the heat generating housing wall.

28. The blower of claim 20, wherein the conductive material is a ribbon.

29. The blower of claim 20, wherein the blower is a centrifugal fan.

30. The blower of claim 20, wherein the blower is an axial fan.

31. The blower of claim 20, wherein the heat-generating wall can generate infinitely adjustable levels of heat.

32. The blower of claim 20, wherein the blower housing comprises at least two sections that are joined at a seam, and the blower further comprises an electrical node adjacent to the seam for providing electrical power to the heat-generating housing wall.

33. The blower of claim 20, further comprising thermal insulation on the heat-generating housing wall to reduce heat losses therethrough.

34. A method of using a blower to heat air, wherein the blower includes a blower element and a blower housing, and the blower housing includes a blower housing wall, the method comprising:

supporting the blower element within the blower housing;

rotating the blower element to force the air through the blower housing; and

heating the air by electrically generating heat within the blower housing wall.

35. The method of claim 34, further comprising conveying electrical current along the blower housing wall.

36. The method of claim 34 wherein the electrical current is applied selectively to vary the length of the electrical path along the blower housing wall.

37. The method of claim 34, further comprising intimately bonding together a conductive material and a thermosetting resin within the blower housing wall, wherein the conductive material is more electrically conductive than the thermosetting resin.

38. The method of claim 34, further comprising varying the amount of heat generated within the blower housing wall.

39. The method of claim 34, further comprising forming the blower housing wall from a material generating heat in response to the application of electric current.

40. A blower for creating a current of air, the blower comprising:

a blower housing defining a suction opening and a discharge opening;

a rotating blower element disposed within the blower housing and being in fluid communication with the suction opening and the discharge opening, wherein the rotating blower element forces the current of air from the suction opening to the discharge opening; and

a heat-generating housing wall borne by the blower housing and interposed between the suction opening and the discharge opening;

wherein the heat generating housing wall is comprised of a material which generates heat in response to the application of current; and

wherein the heat-generating housing wall provides electrically generated heat that heats the current of air.

41. A method of using a blower to heat air, wherein the blower includes a blower element and a blower housing, and the blower housing includes a blower housing wall, the method comprising:

supporting the blower element within the blower housing;

rotating the blower element to force the air through the blower housing;

forming the blower housing wall from a material generating heat in response to the application of electric current; and

heating the air by electrically generating heat within the blower housing wall.

42. A method of using a blower to heat air, wherein the blower includes a blower element and a blower housing, and the blower housing includes a blower housing wall, the method comprising:

supporting the blower element within the blower housing;

rotating the blower element to force the air through the blower housing;

heating the air by electrically generating heat within the blower housing wall; and

selectively varying the length of an electrical path within the blower housing wall.

43. A blower for creating a current of air, the blower comprising:

a blower housing defining a suction opening and a discharge opening;

a rotating blower element disposed within the blower housing and being in fluid communication with the suction opening and the discharge opening, wherein the rotating blower element forces the current of air from the suction opening to the discharge opening;

a heat-generating housing wall borne by the blower housing and interposed between the suction opening and the discharge opening, wherein the heat-generating housing wall provides electrically generated heat that heats the current of air; and

a plurality of connections to selectively apply electricity to the heat generating housing.